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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,362	10/05/2001	Farhan Ahmad	SJ09-2001-0099	4699

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INTERNATIONAL BUSINESS MACHINES CORPORATION
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INTELLECTUAL PROPERTY LAW
SAN JOSE, CA 95193-0001

EXAMINER

DIVECHA, KAMAL B

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/972,362

Applicant(s)

AHMAD ET AL.

Examiner

KAMAL B. DIVECHA

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20020125</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-20 are presented for examination.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 01/25/2002 was filed after the mailing date of the application 09/972,362 on 10/05/2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The lengthy drawing has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

Art Unit: 2151

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-11, 13-17 are rejected under 35 U.S.C. 103(a) as being obvious over Lagueux, Jr. et al. (hereinafter Lagueux, U. S. Patent No. 6,538,669 B1) in view of Nolan et al. (hereinafter Nolan, U. S. Patent No. 6,446,141 B1).

As per claim 1, Lagueux discloses: In a storage area network (SAN) of the type having a plurality of components including one or more digital data processors (col. 9 L28-51 and col. 11 L18-22) in communication with one or more storage devices via a switching fabric (col. 5L54-59; fig. 17 and fig. 1), the improvement comprising: a manager executing on one or more digital data processors and in communication with the other SAN components (fig. 2 item #120, fig. 18, and fig. 19; col. 23 L18-26 and col. 11 L31-39 and L63-64), an interface process in communication with the manager and the other SAN components, the interface process effecting execution of at least one process residing on the manager data processor and at least one application process residing on another SAN component (col. 7 L20-31; col. 10 L21-28; col. 22 L65-67 to col. 23 L1-67 to col. 24 L1-7), however, Lagueux does not explicitly disclose the improvement further comprising: one or more application process (such as web browser, telnet) residing on one or more components of the SAN for at least one of configuring and managing the components.

Nolan, from the same field of endeavor, explicitly discloses one application process such as web-based browser residing on one component of the SAN for at least one of configuring and managing the components (col. 18 L43-49). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Nolan as stated above with Lagueux in order to use web based browser residing in one component of the SAN for at least one of configuring and managing the components.

One of ordinary skill in the art would have been motivated because the application program such as web based browser and the interface process would have provided controls for monitoring and managing the system (Nolan, col. 18 L44-49).

As per claim 2, Lagueux discloses a graphical output device coupled to the interface process for displaying one or more graphical objects each representing one of the SAN component, the interface process being coupled to the graphical output device for effecting the display of the graphical objects on the graphical output device (col. 2 L29-45 and col. 23 L57-60 and fig. 18).

As per claim 3, Lagueux discloses the interface process responds to selection of one of the graphical objects by effecting the display of one or more objects representing one or more application processes on a SAN component represented by the selected graphical object (fig. 18 to fig. 22 and col. 22 L65-67 to col. 24 L1-7).

As per claim 4, Lagueux further discloses the interface process responds to selection of one of the objects representing an application process by effecting execution of the application process represented by that object (col. 22 L65-67 to col. 23 L1-5 and fig. 18).

Art Unit: 2151

As per claim 5, Lagueux discloses the manager maintaining a storage (read as store) containing information regarding one or more components of the SAN (fig. 22 and fig. 2 item #150) and one or more application processes residing on selected ones of the SAN components (col. 14 L58-67 and fig. 11).

As per claim 6, Lagueux discloses the interface process accesses the store, upon selection of a graphical object representing a SAN component, to identify at least one application process, if any, residing on that component (col. 14 L58-67 to col. 15 L1-6).

As per claim 7, Lagueux discloses the process wherein the application used is a web-based browser application (col. 18 L43-49; col. 23 L19-21).

As per claim 8, Lagueux discloses the method wherein the information regarding a component includes an identifier for that component and an application process, if any, residing on that component (fig. 19 item #1457 and 1456).

As per claim 9, Lagueux discloses the method wherein at least one of the graphical objects representing a SAN component provides a textual description of that component (fig. 23 item #1553 and 1555).

As per claim 10, Lagueux discloses the SAN wherein selected ones of the SAN components form a switching fabric for providing communications between selected ones of the digital data processors and the storage devices (fig. 15, fig. 17, fig. 1 and col. 5 L51-53).

As per claim 11, Lagueux discloses the SAN wherein the switching fabric components can be any of a switch, a hub, a gateway, and storage subsystems (fig. 15 item #1204 and item #1205, 1206 and fig. 17 #1342 and item #1338, 1339).

As per claim 13, Lagueux discloses: In a storage area network (SAN) of the type having a plurality of components including one or more digital data processors (col. 9 L28-51 and col. 11 L18-22) in communication with one or more storage devices via a switching fabric (col. 5 L54-59; fig. 17 and fig. 1), the improvement comprising: a manager executing on one or more digital data processors and in communication with the other SAN components (fig. 2 item #120, fig. 18, and fig. 19; col. 23 L18-26 and col. 11 L31-39 and L63-64; fig. 4 item #930); a store coupled to the manager for maintaining the information regarding the SAN components and one or more application processes residing on each component (fig. 4 item #940; fig. 22 and fig. 2 item #150; col. 14 L58-67 and fig. 11); an interface process in communication with the manager and the other SAN components, the interface process effecting execution of at least one process residing on the manager data processor and at least one application process residing on another SAN component (col. 7 L20-31; col. 10 L21-28; col. 22 L65-67 to col. 23 L1-67 to col. 24 L1-7), however, Lagueux does not explicitly disclose the improvement further comprising: one or more agents each associated with selected ones of the digital data processors and in communication with the manager, each agent providing the manager with information regarding the SAN components in communication with its respective digital processor and one or more application process (such as web browser, telnet) residing on one or more components of the SAN for at least one of configuring and managing the components.

Nolan, from the same field of endeavor, explicitly discloses: one or more agents (read as ISAN servers) each associated with selected ones of the digital data processors (col. 12 L50-67) and in communication with the manager, each agent capable of providing the manager with information regarding the SAN components in communication with its respective digital

Art Unit: 2151

processors (fig. 13 item #1300-1302, fig. 10 item #1100 and col. 18 L44-67 to col. 19 L1-66).

Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to incorporate the teaching of Nolan as stated above and connect the agents to the manager of the Lagueux's system through the hardware interfaces (fig. 4) for providing the manager with information regarding the SAN components.

One of ordinary skilled in the art would have been motivated because the agents would have provided configuration, diagnostics, performance monitoring, and health and status monitoring, which would have allowed different components to be monitored (Nolan, col. 5 L25-30, col. 18 L48-50, 54-59).

As per claims 14-17, they do not teach or further define over the limitations in claims 1-11 and 13. Therefore, claims 14-17 are rejected for the same reasons as set forth in claims 1-11 and 13.

3. Claims 12 and 18-20 is rejected under 35 U.S.C. 103(a) as being obvious over Lagueux, Jr. et al. (hereinafter Lagueux, U. S. Patent No. 6,538,669 B1) in view of Nolan et al. (hereinafter Nolan, U. S. Patent No. 6,446,141 B1), and further in view of "Official Notice".

As per claim 12, Lagueux in view of Nolan discloses the SAN as in claim 11, however Lagueux in view of Nolan does not explicitly disclose switching fabric components including an application process associated therewith for managing that switching fabric. Official Notice is taken that use of an application process in a switching fabric for managing the switching fabric is well known and expected in the art. Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to claim an application process

Art Unit: 2151

associated with a switching fabric components for managing the switching fabric. One of ordinary skilled in the art would have been motivated because the switching fabric components would have not been able to operate/work or provide switching services without the application software.

As per claim 18, it does not teach or further define over the limitations in claim 12. Therefore, claim 18 is rejected for the same reasons as set forth in claim 12.

As per claim 19, Neither Lagueux nor Nolan explicitly disclose the SAN wherein the interface process effects the execution of the management application process associated with a switching fabric component in response to selection of a graphical object representing that switching fabric component on the graphical output device, but Nolan discloses a management application interface (fig. 1B item #120) effecting the execution of the various controls and a display window (read as graphical output device) in a graphical format which provides controls for monitoring and managing the system (fig. 10). Therefore, it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Nolan to include the graphical object representing the management application process associated with a switching fabric component on the graphical output device. One of ordinary skilled in the art would have been motivated because it would have provided the administrator with the controls for monitoring and managing the switching fabric component of the network (Nolan, col. 18 L44-49).

As per claim 20, Neither Lagueux nor Nolan explicitly disclose the SAN wherein the interface process permits an operator to utilize output display to interact with the management application process being executed to at least one of configure and manage the switching fabric

Art Unit: 2151

component with that management application process, But Nolan discloses a management application interface (fig. 1B item #120) allowing an administrator (read as an operator) to utilize the graphical output display (col. 18 L44-67 to col. 19 L1-28 and fig. 10). Therefore, it would have been obvious to a person of ordinary skilled in the art to modify Nolan to enable an administrator to utilize the graphical output display to interact with the management application process being executed to at least one of configure and manage the switching fabric component associated with that management application process. One of ordinary skilled in the art would have been motivated because of the same reasons as set forth in claim 19.

Additional References

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Padavano U. S. Patent No. 6,606,690 B2.
- b. Crook U. S. Patent No. 6,642,942 B1.
- c. Reuter et al., 6,745,207 B2.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on 9.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2151

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Zarni Maung', is positioned above the printed name.

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER